

App. Ser. No.: 10/057,694  
Atty. Doc. No.: D02750

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

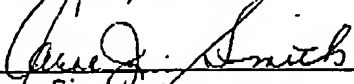
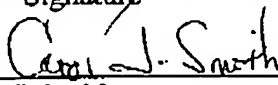
Appl. No.: 10/057,694  
Inventor: Chanchal Chatterjee  
Filing Date: January 23, 2002  
Title: Methods and Systems for Efficient Filtering of Digital Signals  
Examiner: Do, Chat C.  
Art Unit: 2193  
Atty. Docket No.: D02750

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF  
REQUEST FOR REVIEW

Please enter these arguments in response to the Final Office Action mailed on  
October 18, 2005 and conduct a pre-appeal brief conference.

I hereby certify this correspondence is being sent via facsimile transmission to facsimile number (571) 273-8300 or deposited with the United States Post Office as first class mail in an envelope, with sufficient postage thereon, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

  
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### REMARKS

Due to a Restriction Requirement, only claims 1-3, 8-21, 43 and 44 are under consideration for this pre-appeal conference. In addition, the Examiner has indicated claims 16 and 17 as allowed and claims 9-13 as containing allowable subject matter.

In the Final Rejection mailed on October 18, 2005, the Examiner cited to rows 36 and 38 in Dijkstra's Figure 3 as showing BOTH the approximate filtered sample and the filtered sample claimed in claims 1, 43 and 44. This conclusion is unsupported because claims 1, 43 and 44 define the filtered sample as being based on the approximate filtered sample. In other words, the approximate filtered sample and the filtered sample are not the same thing in these claims. Therefore the Examiner cannot use a single element from Dijkstra as a teaching for two distinct claim elements.

Also in the Final Rejection, the Examiner asserts that rows 32 AND 36 or 38 show the claimed function of  $(A+B+1) \gg 1$ . Dijkstra does not show the quantity 1 being added to two variables. What Dijkstra does show is a 1-carry bit in Figure 3. More specifically, the first column of the A variable 1101 (13) plus the first column of the B variable 0010 (2) plus the 1-bit carry from the second column yields the result shown in the first column of row 32, namely 10000 (16). If there were no carry bit from the second column over to the first, the result in the first column of row 32 would be 1111 (15). In other words, row 32 simply shows  $A + B$ , as described in Figure 3, and not  $(A + B + 1)$  as claimed.

The logical operation shown in row 38 is also different from the claimed  $(A + B + 1)$  being right-shifted by one bit. Row 38 shows the quantity  $(A + B) + ((A \text{ EOR } B) \text{ AND MASK})$  being right shifted one bit. The sub-calculations to generate  $(A + B + 1)$

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may require two addition operations. However, the sub-calculations to generate  $((A + B) + ((A \text{ EOR } B) \text{ AND } \text{MASK}))$  may require two addition operations, one exclusive OR operation and one AND operation for a total of 4 operations. Since Dijkstra performs more operations than the claimed invention, it follows that row 38 is not the same as the claimed  $(A + B + 1) >> 1$ .

In the Advisory Action mailed on December 15, 2005, the Examiner relies on a different portion of Dijkstra to support the rejection of claims 1, 43 and 44. More specifically, the Examiner asserts that the addition of the MASK unit is the same as "+ 1." Dijkstra never adds the MASK to any variable in Figure 3. Instead, Dijkstra teaches a logical ANDing of the MASK to the quantity  $(A \text{ EOR } B)$ . Thus, the MASK in Dijkstra is never added to anything let alone the quantity  $(A + B)$ .

In the Final Rejection, the Examiner asserts that Dijkstra shows a right shift of the quantity  $(A + B + 1)$  in rows 36 and 38 of Figure 3. While Dijkstra does show a right shift by one bit in rows 36 and 38, the quantities being right shifted by Dijkstra are  $((A + B) + (A \text{ EOR } B) \text{ AND } \text{MASK})$  in row 38 and  $((A + B) - (A \text{ EOR } B) \text{ AND } \text{MASK})$  in row 36. These quantities are different from the quantity  $(A + B + 1)$ .

With respect to claim 8, it does not matter if the Examiner equates both S and R to 0. What does matter is that Dijkstra never teaches the calculation of  $(A + B + 1) >> 1$  as previously described. Therefore, Dijkstra does not anticipate claim 8.

In rejecting claims 11 and 12, the Examiner asserts that the limitations therein are the same as the limitations in claims 8 and 9. This is not true because claim 11, and claim 12 by its dependence on claim 11, recite the restriction that  $S > R$ . This restriction is not recited in claims 8 and 9. Since claims 11 and 12 require  $S > R$ , it follows that

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S=R=0 as assumed by the Examiner cannot happen. Therefore the limitations in claims

11 and 12 are different from what is claimed in claim 8 and 9 and are not taught or

suggested by Dijkstra.

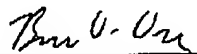
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CONCLUSION

Applicant respectfully requests reconsideration of the present application in a pre-appeal conference, withdrawal of the rejections made in the last Office Action and the issuance of a Notice of Allowance.

Respectfully submitted,

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3/29/06  
Date

Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)

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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional) <div style="font-size: 1.2em; margin-top: 5px;">D02750</div>							
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]  on <u>March 29, 2006</u> Signature <u>Carol J. Smith</u>  Typed or printed name <u>Carol J. Smith</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Application Number <div style="font-size: 1.2em;">10/057,694</div></td> <td style="padding: 5px;">Filed <div style="font-size: 1.2em;">1/23/2002</div></td> </tr> <tr> <td colspan="2" style="padding: 5px;">First Named Inventor <div style="font-size: 1.2em;">Chanchal Chatterjee</div></td> </tr> <tr> <td style="padding: 5px;">Art Unit <div style="font-size: 1.2em;">2193</div></td> <td style="padding: 5px;">Examiner <div style="font-size: 1.2em;">Do, Chat C</div></td> </tr> </table>		Application Number <div style="font-size: 1.2em;">10/057,694</div>	Filed <div style="font-size: 1.2em;">1/23/2002</div>	First Named Inventor <div style="font-size: 1.2em;">Chanchal Chatterjee</div>		Art Unit <div style="font-size: 1.2em;">2193</div>	Examiner <div style="font-size: 1.2em;">Do, Chat C</div>
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<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>									
I am the  <input type="checkbox"/> applicant/inventor.  <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/98)  <input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>41,571</u>  <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____		<div style="text-align: center;">           Signature  <u>Benjamin D. Driscoll</u>          Typed or printed name   <u>(215) 323-1840</u>          Telephone number   <u>3/29/06</u>          Date       </div>							
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.									
<input type="checkbox"/> Total of <u>1</u> forms are submitted.									

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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